Eastern Green Neurosurgery Letter to Editor

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Letter to the Editor in Response to "Enhancing Cerebrospinal Fluid Clearance in Subarachnoid Hemorrhage: A Systematic Review of Combined Ventricular and Lumbar Drainage"

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Dear Editor,

I recently read with great interest the article titled "Enhancing cerebrospinal fluid clearance in subarachnoid hemorrhage: A systematic review of combined ventricular and lumbar drainage" which investigated the effects of dual drainage (external ventricular drainage [EVD] and lumbar drainage [LD]) in the management of subarachnoid hemorrhage[1]. The authors have done an impressive job, but certain methodological elements of the study need further refinement to strengthen the study's findings.

Firstly, the study did not compare EVD alone vs EVD+LD (Dual drainage) in a rigorous way, as noted, the EARLYDRAIN trial demonstrated benefits of lumbar drainage when added to standard care; however, it did not compare EVD alone with the combination of EVD and LD in a randomized fashion. Additionally, there appear to be no published randomized controlled trials directly comparing EVD versus LD versus dual drainage, despite considerable interest in this important question. Without such head-to-head data, it is difficult to draw definitive conclusions about the relative efficacy of dual drainage[2,]

Secondly, infection is a major concern with dual catheter use, yet infection rates vary markedly, for instance, 12.5% among poor-grade SAH patients using LD in combination with EVD, whereas other series report rates around 5.7% for LD alone. These differences might reflect clinical or methodological variability, including inconsistent definitions of infection, monitoring duration, and diagnostic criteria. Without standardized definitions and consistent monitoring practices, accurately comparing safety across studies is problematic[4,] Furthermore, placement timing of lumbar drains ranged widely, and drainage duration spanned from half a day to over two weeks. Outcome measures like definitions of complications and functional success also varied significantly, making cross-study comparison problematic. In a systematic review by Alcala-Cerra et al., significant statistical heterogeneity was observed (I^2=70%) in the assessment of severe disability outcomes[6]. Similarly, Hulou et al.'s meta-analysis employed random-effects models due to protocol and outcome variability, further highlighting the inconsistency across the literature[7]. This methodological heterogeneity limits the reliability of pooled estimates and underscores the need for standardized protocols and harmonized outcome definitions in future research.

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In conclusion, although the study offers important insights into the medical field, inconsistent infection reporting, and variation in protocols and outcomes could enhance the robustness of the findings. We appreciate the author's contribution to this significant topic.

Declaration of generative AI and AI-assisted technologies

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Disclosure

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Reference:

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